INITIATE AN INTRAVENOUS INFUSION

RIFLES LIFESAVERS

Introduction

- **Prompt use of IV therapy could make the difference between a casualty dying of wounds and surviving**

Indications for IV fluids

- **Replace fluid losses**
  - **Hemorrhage from injury**
  - **Dehydration from heat or illness**
  - **Plasma loss from burns**

Complications of IV Therapy

- Infiltration
- Air embolism
- Can easily avoid with attention during IV placement

Infiltration

- Infusion of fluid into tissues at IV site
- Signs & Symptoms
  - Poor or no IV flow
  - Swelling and pale appearance at site
  - Fluid leaking around site
  - Pain, tenderness, and/or burning at site
- Stop IV, restart at another site

Venous Air Embolism

- **Obstruction of blood vessel by air in the blood causing symptoms such as chest pain and dizziness**
- **Caused by large volume of air infused into blood vessels**
- **Preventive measures**
  - **Elevate IV bag**
  - **Prime tubing adequately**
  - **Saline lock when IV infusion finished**

Initiate an IV

- **Prepare equipment**
  - Tape
  - Constricting band
  - Sterile gauze
  - Antiseptic sponges
  - Betadine
  - Latex gloves
  - IV solution
  - IV administration set
  - Needle or catheter

Initiate an IV

- **Inspect and assemble equipment**
  - **Maintain sterility while removing protective covers from the drip chamber and the outlet (long spout) of the IV container**

Initiate an IV

- **Insert spike into container**
  - **If using a bag, push spike firmly into container's outlet tube.**
  - **If using a bottle, push spike firmly through container's diaphragm.**

Initiate an IV

- **Hang the container at least 2 feet above the level of the patient's heart if possible and squeeze the drip chamber until it is half full of solution**

Initiate an IV

- **Remove air from tubing as follows:**
  - **Hold end of tubing above the level of the bottom of the IV container**
  - **Loosen protective cover on needle adapter to allow air to escape**
  - **Release the clamp on tubing**

Closed

Open

Initiate an IV

- **Remove air from tubing continued:**
  - **Gradually lower the tubing until the solution reaches the end of the needle adapter**

Initiate an IV

- **Select the infusion site**
  - **Choose the most accessible site**
  - **Avoid veins that are infected or injured or irritated areas**
  - **Select a vein large enough to accommodate the needle/catheter**

Initiate an IV

- **Prepare infusion site**
  - **Apply constricting band about 2 inches above venipuncture site, light enough to stop flow but not so tight that the radial pulse cannot be felt**

Initiate an IV

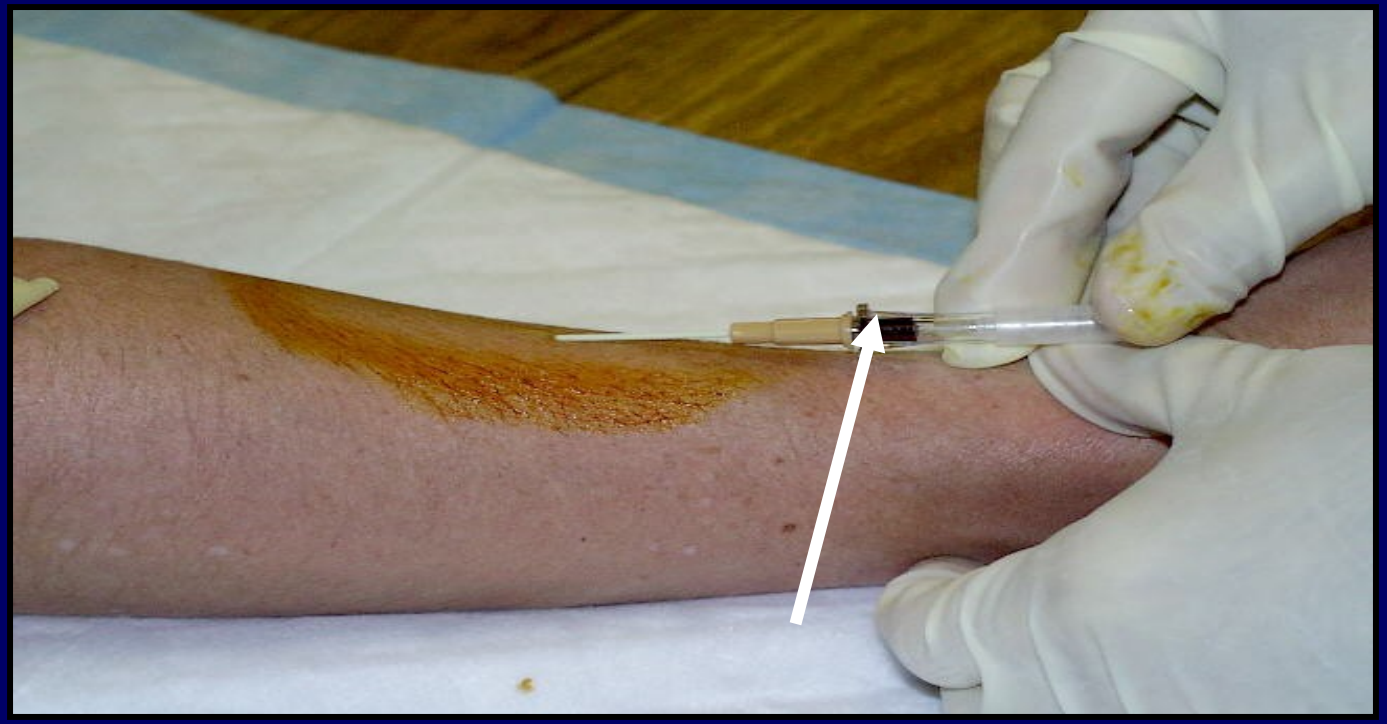
- **Prepare infusion site continued**
  - **Select and palpate a prominent vein**
  - **Put on gloves**
  - **Clean skin with antiseptic**

Initiate an IV

- **Position the needlepoint, bevel-up, parallel to the vein and about 1/2 inch below the site of venipuncture**
- **Hold the needle at 20-30 degree angle and pierce skin**

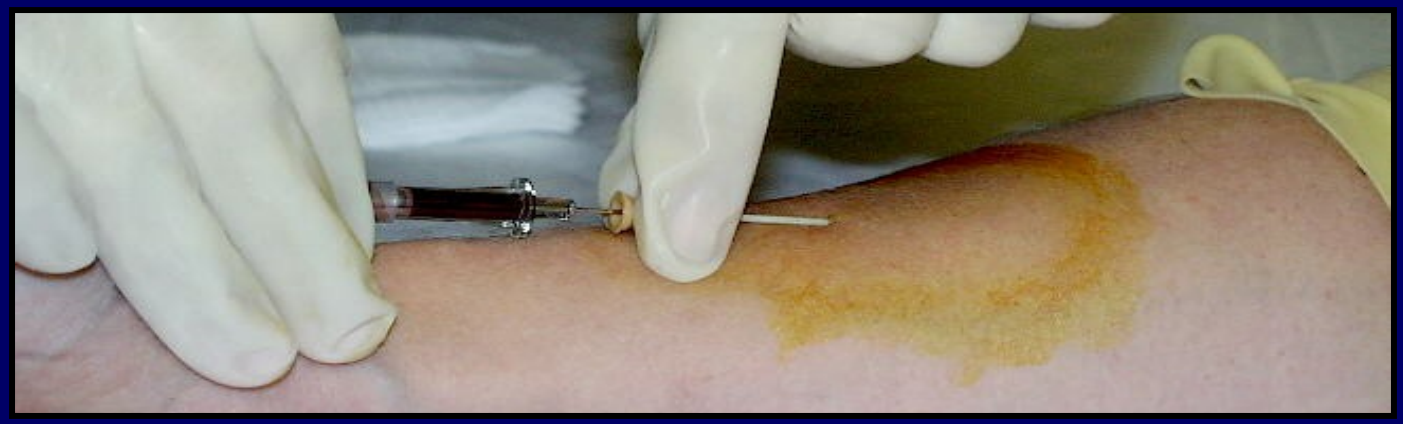
Initiate an IV

- **Check for blood in the flash chamber.**



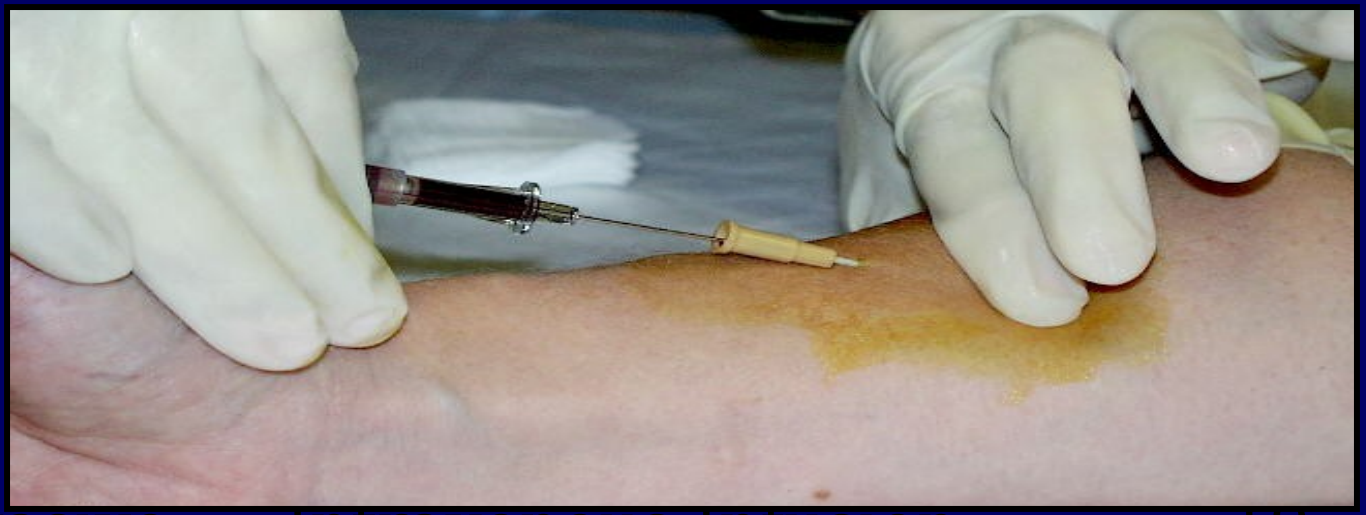
Initiate an IV

- **Advance the catheter and needle unit approximately 1/8 inch further to ensure placement of catheter in the vein**
- **Stabilize flash chamber with dominant hand, grasp catheter hub with non-dominant hand and thread catheter into vein, to catheter hub**



Initiate an IV

- **Press lightly on skin over, but <u>just beyond</u> catheter tip to decrease or stop blood flow from vein/catheter after needle is removed**



Initiate an IV

- **Unclamp IV tubing and examine infusion site for infiltration and discontinue if infiltration is present**

Initiate an IV

- **Loop the IV tubing on extremity and secure with tape**
- **Splint the arm loosely on a padded splint, if necessary, to reduce movement**

Initiate a Saline Lock

- **Advantages**
  - **Maintains IV access**
  - **Eliminates administration of unneeded fluids**
- **Equipment needed**
  - **IV catheter**
  - **Saline lock adapter plug**
  - **Syringe filled with 5 cc sterile saline for flush**
  - **Alcohol wipes**

Initiate a Saline Lock

- **Procedure for establishing a saline lock**
  - **Gather equipment**
  - **Put on gloves**
  - **Insert catheter same as with an IV**
  - **Attach saline lock instead of IV tubing**
  - **Inject 1-5cc of saline into the lock**
  - **Secure site and cover with dressing**

Questions?